

REMARKS

Claim Rejections

Claims 1-6 are rejected under 35 U.S.C. § 112, second paragraph. Claims 1-4 and 6 are rejected under 35 U.S.C. § 102(b) as being anticipated by Heater (U.S. 2,368,985). Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable by Heater in view of Keiner (EP 0318687).

Drawings

Applicant proposes to amend Figure 1 as illustrated in red on the attached photocopy. In Figure 1, it is proposed to add reference number --126--. No "new matter" has been added to the original disclosure by the proposed amendment to this figure. Approval of the proposed drawing change is respectfully requested.

The Examiner has objected to the drawings under 37 C.F.R. § 1.83(a) insofar as the heat sinks, referred to in Applicant's claim 6, were not illustrated in the figures. Since the term has been deleted from Applicant's new claims, is not believed that any drawing corrections are necessary.

Amendments to Specification

Applicant has amended the specification as noted above to provide antecedent basis for reference number "126". No "new matter" has been added to the original disclosure by the foregoing amendments to the specification.

New Claims

By this Amendment, Applicant has canceled claims 1-6 and has added new claims 7-10 to this application. It is believed that the new claims specifically set forth each element of Applicant's invention in full compliance with 35 U.S.C. § 112, and define subject matter that is patentably distinguishable over the cited prior art, taken individually or in combination.

The new claims are directed toward a disk brake structure comprising: an assembly section (11); a friction section (12) connected to the assembly section and having: a first brake surface (121); a second brake surface (123); a heat sink (122)

located between the first brake surface and the second brake surface; and a plurality of heat sink ribs (124) located between and connecting the heat sink to the first brake surface and the heat sink to the second brake surface, the plurality of heat sink ribs being spaced apart a predetermined distance; and a plurality of heat sink holes (125) located in a structure selected from the group consisting of the first brake surface, the second brake surface, the heat sink, and a combination thereof, wherein a predetermined number of the plurality of heat sink holes form a plurality of curved patterns, each of the plurality of curved patterns having a first end located adjacent a inner periphery of the friction section and a second end located adjacent to an outer periphery of the friction section.

The primary reference to Heater teaches a brake rotor having friction plates (2) with a support member (12) located there between, and blades (10) located between each of the friction plates and the support member.

Heater does not teach a plurality of heat sink holes located in a structure selected from the group consisting of the first brake surface, the second brake surface, the heat sink, and a combination thereof; a predetermined number of the plurality of heat sink holes form a plurality of curved patterns; nor does Heater teach each of the plurality of curved patterns having a first end located adjacent a inner periphery of the friction section and a second end located adjacent to an outer periphery of the friction section.

It is axiomatic in U.S. patent law that, in order for a reference to anticipate a claimed structure, it must clearly disclose each and every feature of the claimed structure. Applicant submits that it is abundantly clear, as discussed above, that Heater does not disclose each and every feature of Applicant's new claims and, therefore, could not possibly anticipate these claims under 35 U.S.C. § 102. Absent a specific showing of these features, Heater cannot be said to anticipate any of Applicant's new claims under 35 U.S.C. § 102.

The secondary reference to Keiner teaches brake disc and is cited from teaching a hole in a sheet metal located between two ring discs.

Keiner does not teach a predetermined number of the plurality of heat sink holes form a plurality of curved patterns; nor does Keiner teach each of the plurality of curved patterns having a first end located adjacent a inner periphery of the friction section and a second end located adjacent to an outer periphery of the friction section.

Even if the teachings of Heater and Keiner were combined, as suggested by the Examiner, the resultant combination does not suggest: a predetermined number of the plurality of heat sink holes form a plurality of curved patterns; nor does the combination suggest each of the plurality of curved patterns having a first end located adjacent a inner periphery of the friction section and a second end located adjacent to an outer periphery of the friction section.

It is a basic principle of U.S. patent law that it is improper to arbitrarily pick and choose prior art patents and combine selected portions of the selected patents on the basis of Applicant's disclosure to create a hypothetical combination which allegedly renders a claim obvious, unless there is some direction in the selected prior art patents to combine the selected teachings in a manner so as to negate the patentability of the claimed subject matter. This principle was enunciated over 40 years ago by the Court of Customs and Patent Appeals in In re Rothermel and Waddell, 125 USPQ 328 (CCPA 1960) wherein the court stated, at page 331:

The examiner and the board in rejecting the appealed claims did so by what appears to us to be a piecemeal reconstruction of the prior art patents in the light of appellants' disclosure. ... It is easy now to attribute to this prior art the knowledge which was first made available by appellants and then to assume that it would have been obvious to one having the ordinary skill in the art to make these suggested reconstructions. While such a reconstruction of the art may be an alluring way to rationalize a rejection of the claims, it is not the type of rejection which the statute authorizes.

The same conclusion was later reached by the Court of Appeals for the Federal Circuit in Orthopedic Equipment Company Inc. v. United States, 217 USPQ 193 (Fed.Cir. 1983). In that decision, the court stated, at page 199:

As has been previously explained, the available art shows each of the elements of the claims in suit. Armed with this information, would it then be non-obvious to this person of ordinary skill in the art to coordinate these elements in the same manner as the claims in suit? The difficulty which attaches to all honest attempts to answer this question can be attributed to the strong temptation to rely on hindsight while undertaking this evaluation. It is wrong to use the patent in suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims in suit. Monday morning quarterbacking is quite improper when resolving the question of non-obviousness in a court of law.

In In re Geiger, 2 USPQ2d, 1276 (Fed.Cir. 1987) the court stated, at page 1278:

We agree with appellant that the PTO has failed to establish a *prima facie* case of obviousness. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching suggestion or incentive supporting the combination.

Applicant submits that there is not the slightest suggestion in either Heater or Keiner that their respective teachings may be combined as suggested by the Examiner. Case law is clear that, absent any such teaching or suggestion in the prior art, such a combination cannot be made under 35 U.S.C. § 103.

Neither Heater nor Keiner disclose, or suggest a modification of their specifically disclosed structures that would lead one having ordinary skill in the art to arrive at Applicant's claimed structure. Applicant hereby respectfully submits that no combination of the cited prior art renders obvious Applicant's new claims.

Application No. 10/733,312


Summary

In view of the foregoing amendments and remarks, Applicant submits that this application is now in condition for allowance and such action is respectfully requested. Should any points remain in issue, which the Examiner feels could best be resolved by either a personal or a telephone interview, it is urged that Applicant's local attorney be contacted at the exchange listed below.

Respectfully submitted,

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IN THE DRAWINGS:

Please amend Figure 1 as illustrated in red on the attached photocopy.